

## Notable Observations for the First Draft of the Base Case for the West Coast Storage Modeling Effort

- 1) California electric load grows by an average of between 1.0 and 1.5 percent per year during the next few years, well below the national average rate of growth of over 2 percent per year.
  - Most incremental electric load is satisfied by growing renewables generation.
- 2) California gas load does not change by much during the next few years.
  - Slight growth occurs in the power sector, but that growth is nearly offset by slight declines in residential and commercial gas use.
- 3) No major gas storage expansions are planned for the Western U.S. during the next few years.
- 4) The only major facilities expansions that are likely to occur in the Western U.S. (or in bordering areas) are the western portion of the Rockies Express (REX) Pipeline that is scheduled to begin operating in January 2008 and the Costa Azul LNG import facility and accompanying Baja Norte Pipeline Expansion that is scheduled to begin operating later in 2008.
- 5) Production in the Northern Rocky Mountain producing basins (i.e., the Greater Green River, Uinta, and Piceance Basins) continues to grow at rates consistent with recent growth rates. Versus current levels, production from these basins will increase by over 1 Bcfd by the beginning of 2010.
- 6) Incremental production from the Northern Rocky Mountain producing basins mostly moves eastward during this near-term projection. Transport from the Rockies eastward increases by almost 1 Bcfd by the beginning of 2010.
  - Some production remains in the Rockies to satisfy local demand growth.
- 7) Production from the San Juan and Permian Basins remains nearly flat throughout this near-term projection.
- 8) Western Canadian Sedimentary Basin production will likely decline significantly during the next few years due to recent declines in drilling activity.
  - Exports from Western Canada to the U.S. decline as well.
- 9) TransCanada Pipeline converts 800 MMcfd of its gas transmission line to oil transmission line during this projection.
- 10) All West Coast gas prices are likely to average between \$6 and \$7 per MMBtu during the next few years.
  - Rocky Mountain prices firm from their recent average of between \$3 to \$4 to per MMBtu to average over \$6 per MMBtu after startup of REX.

## Notable Observations for the First Draft of the Base Case for the West Coast Storage Modeling Effort (continued)

11) Utilization of all pipelines in the Western U.S. (except for those transporting gas eastward out of the Rockies) does not change by much during the next few years.

- GTN transport from Canada to California will likely decline, as a result of declining production in Western Canada.
- Mexican exports will likely decline, as a result of deliveries at the Costa Azul LNG import facility. However, slow growth in LNG deliveries (due to lack of supply) will not significantly change California's import/export activity until 2010.
- Kern River Pipeline, El Paso Pipeline, and Transwestern Pipeline flows are projected to remain fairly close to today's levels throughout this near-term projection.
- All major gas pipeline interconnects within California (i.e., Kramer Junction, Wheeler Ridge, the Cadiz crossover, etc) continue to be utilized at levels that are similar to today's levels, with the exception that PG&E deliveries to SoCal at Kern River Station are likely to decline during the next few years. This change is probably a result of the declining deliveries from GTN to PG&E at Malin.

12) Storage utilization increases during the next few years.

- Versus the past few years, storage turnover in the Western U.S. increases by just under 40 Bcf; withdrawals increase by about 270 MMcfd and injections increase by about 200 MMcfd.
- Storage turnover in California increases by over 20 Bcf; withdrawals increase by about 140 MMcfd and injections increase by about 100 MMcfd.
- This likely occurs because the Western U.S. is not as "supply-rich" during the winter because Rocky Mountain production makes its way on REX eastward to higher priced markets in the east.